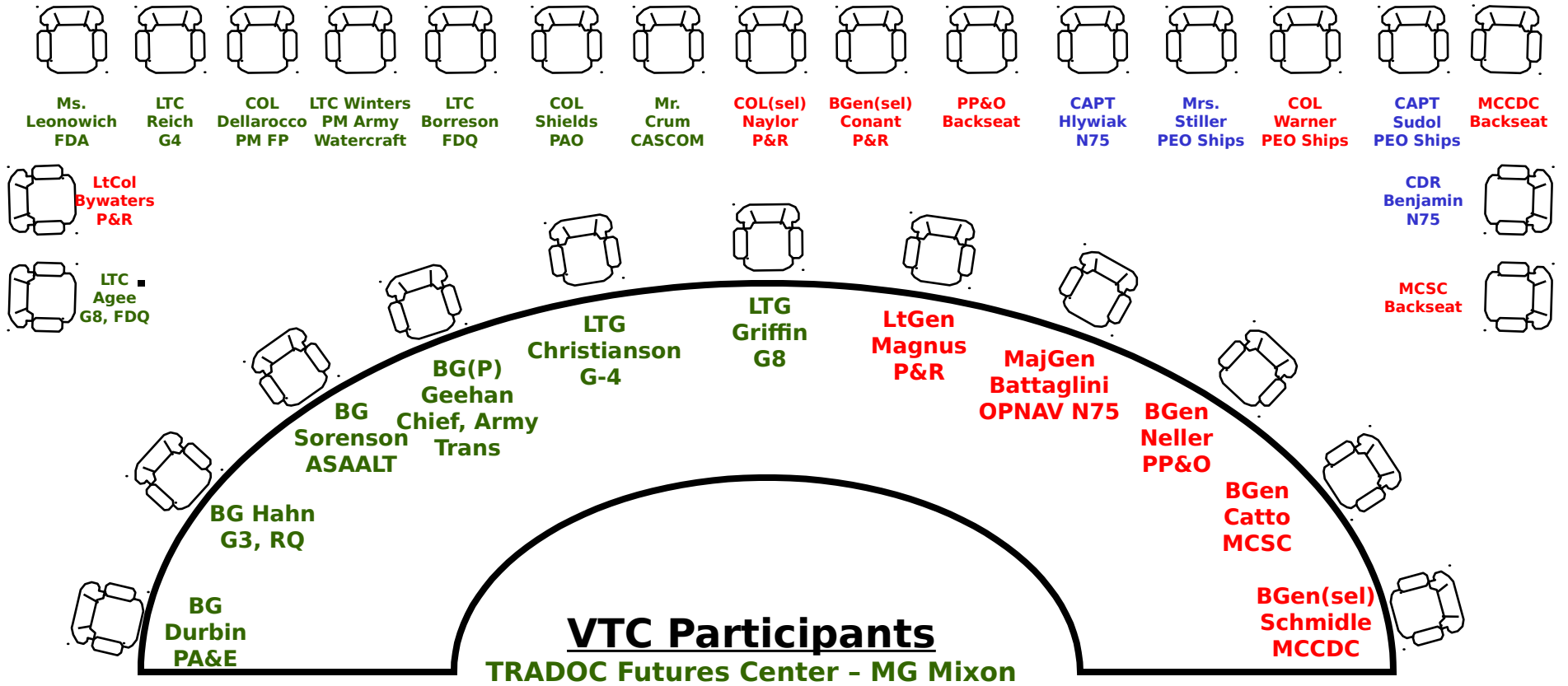
3-Star AMCB G8 Conference Room (3E387)

19 NOV 03, 1415-1530 (TSV/HSV)



Army Marine Corps Board

Army Theater Support Vessel (TSV)
USMC High Speed Vessel (HSV)

19 NOV 03, 1415-1530 (3E387)

Purpose

- **Provide Overview and Status of Army TSV and USMC HSV programs**
- **Discuss and compare objectives of the respective programs**
- **Gain Approval for Way Ahead**

Theater Support Vessel (TSV)
&
High Speed Vessel (HSV) Brief

AMCB (3 Star Review)

19 November 2003

Recommendations

- **Develop a Joint Program Office**
- **Evolve a Common O&O Plan**
- **Develop Joint AoA for a Non-Developmental Solution**
- **Develop Single ICD/CCD**
- **Provide Single Interchangeable Material Solution**
- **Provide Update in Six (6) Months**

Background

- **DoD has been experimenting with High Speed Vessels since Oct 2001**
- **HSVs have been employed in operations and experimentation by Army, Navy, SOCOM and USMC**
- **DoD currently has 3 HSVs under lease and 1 under charter**

DoD Experimental Vessels

Capabilities-Based Requirement

- **Joint Requirements …**
  - **Transformation Planning Guidance**
  - **Quadrennial Defense Review 2001**
  - **Defense Planning Guidance 04-09**
  - **DSB Task Force on Sea basing Report**

- **USMC Operational Concepts …**
  - **Expeditionary Maneuver Warfare**
  - **Operational Maneuver From the Sea**
  - **Enhanced Networked Sea basing**

- **Army Operational Concepts …**
  - **Support to Force Operating Capabilities (TRADOC Pam 525-66)**
    - **Deployability**
    - **Enable Theater Access**
    - **Mounted/Dismounted Maneuver**
    - **Battle Command Construct**
    - **Maneuver Sustainment**

Capabilities

TSV	***HSV***	
X	X	High Speed – Rapid Littoral Maneuver & Force Closure
X	X	Rapid Unassisted Ingress and Egress Enables Austere Port Operations
X	X	Deliver Combat Ready Units Configured for Immediate Employment in Joint Operating Area
X	X	Reduce Reception and Staging Times in Theater of Operations
X	X	May Mitigate Requirement for Over-the-Beach JLOTS

TSV/HSV Capabilities Contrast

Requirements	***Army***	***Marine Corps***
Passengers	354	250-900
Payload	754-1250ST	600-750ST
Skin – to – Skin Interoperability	No	Yes
Underway Refuel	No	Yes
Helo Ops	Rqmt for 1 out of 4 (Refining capabilities)	Needed on Every Vessel

TSV BN Level
Intra-theater Lift Examples

Type Unit	TSV Block II Required	Distance	Underway Time (Hrs)	Distance	Underway Time (Hrs)	Distance	Underway Time (Hrs)	Distance	Underway Time (Hrs)
SBCT Inf Bn (BCT)	2	1250 NM	31.25	1000 NM	25	800 NM	20	600 NM	15
UA Combined Arms Bn	3	1250 NM	31.25	1000 NM	25	800 NM	20	600 NM	15
Mech Inf Bn (SRC 07245F100)	3	1250 NM	31.25	1000 NM	25	800 NM	20	600 NM	15

- **Deploy to Employ – Ability to rapidly relocated TSV worldwide and mass assets to support intra-theater operational movement and sustainment operations**
  - ✓ **Norfolk to Umm Qasr - 10 days**
  - ✓ **Hawaii to Yokohama – 3.7 days**
  - ✓ **Norfolk to Naples – 4.8 days**
- **Within theater, maximizes speed and carrying capacity when operating from an Intermediate Staging Base or Sea Base**
  - ✓ **APS-5 (Qatar) to Kuwait Navy Base – 11 hours**
  - ✓ **APS-4 (Yokohama) to Pusan – 18 hours**

High Payload Fraction …

Maneuver Forces 600 Miles …

Mechanized TF

- 290 Marines
- 8 AAAVs
- 4 M1A1 MBTs
- 4 LAV-25
- 2 TOW HMMWVs
- 2 HMG HMMWVs
- 5 MRC-145/M998s
- 2 AH-1Z

Mobile CSSD

- 16 MTVRs
- 4 LVSs (Fuel, Water)
- 2 Ambulances
- 2 MRC-145s
- 12 Cargo HMMWVs
- 2 RT-4000
- 2 CH-46/HH-60s

… Within 16 hours

Preliminary Joint Findings

- **Capable of Worldwide Employment**
- **Capable of Operational Movement of Combat Ready Units**
- **Supports Operational Movement of Forces**

- **Capable of Ship-to-Ship and Ship-to Shore operations**
  - **RRDF to HSV transfers**
  - **At Sea Causeway transfers**
  - **Crane transfers with Cargo/MPF shipping**
- **Capable of Supporting MAGTF operations in the Littorals**

USMC Experimentation

- **Seabasing Support – Development of Ship-to-Ship and Ship-to-Shore Interfaces**
- **Advanced Force Ops/Littoral Maneuver**
- **MAGTF Operational Maneuver**
- **Austere Port and Riverine Operations**
- **HA/DR, NEO, Medical Operations**
- **High Speed Intra-theater Lift**
- **Flight Operations**

ARMY Experimentation

- **Operational Movement & Sustainment**
- **Strategic Responsiveness**
- **Enroute Mission Planning Rehearsal**
- **Reduced Logistics Footprint**
- **Survivability**
- **Flight Operations**
- **In-stream Discharge**

Known Limitations

- **Not a Combatant Vessel**
- **Not a Strategic Mobility Asset**
- **Provides No Beaching Capability**

Current Standings/ Status

	TSV	HSV
ACAT	ACAT II	TBD
Requirements Doc	Apr 03 - AROC Aprv'd ORD	MROC Brief Aug 03
Major Decisions	Apr 03 - AROC Sep 03 – ASARC IPT	TBD
Upcoming Events	2QTR 04 – J ROC (tent)	TBD

TSV Program Status

- **ACAT Level - II**
  - **Current funding meets criteria for ACAT II Designation (Significant interest in OSD/OMB and Joint Community may force program to ACAT I)**
- **Major Decisions**
  - **ACQ Strategy Decision w/ G Staff coincides with POM 06-11**
  - **ACQ Strategy ASARC IPR tentative 2nd QTR FY04 (tent.)**
- **Major Program Events**
  - **ACTD - FY03 Start**
  - **AROC - Apr 03**
  - **ASARC IPT - Sep 03**
  - **JROC - 2QTR FY04 (tent.)**
  - **Milestone C - TBD**
- **Acquisition Program Baseline (APB) - TBD**

USMC Status

- **MROC Briefed August 2003**
  - **Results published in MROC DM 61-2003**
  - **Directed MCCDC explore acquisition program, including possible JPO**
  - **Establishment of NAVAL IPT to develop naval concept and examine acquisition options**
- **Continue Concept based Experimentation with SWIFT (HSV-2)**
  - **Provide feedback while refining concepts and requirements**
  - **WATC – 04 and JLOTS – 04**
- **In initial stages of establishing formal program**

Army Funding (POM/BES FY 05-09)

FY 08 Start — 4 Vessels in POM

[PM provided] US Army Estimate = $149M

Current Estimate:

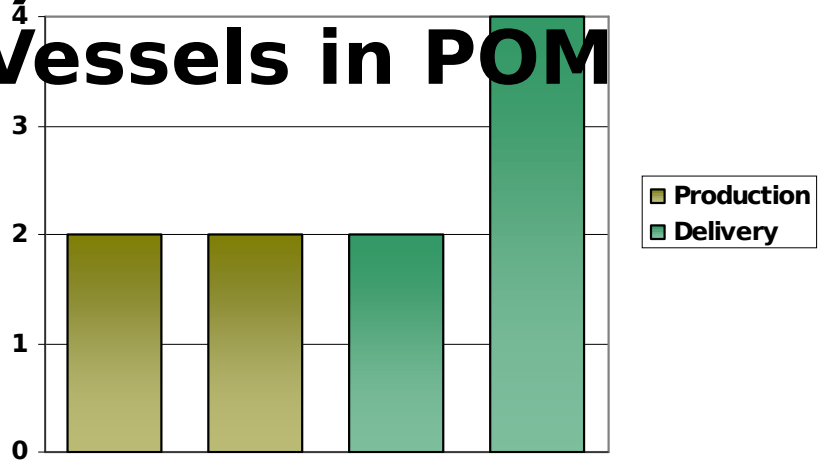
~~**(Hardware Only)**~~

$149M = TSV Cost (03$) —

(Includes GFE and Assumes Multi-Year Savings)

Total Costs Include Overhead — *Simulator Cost FY06.

(Data/Manuals, PM/Matrix Salaries) and Testing.



	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	TOTAL
OPA Total Cost ($M)			* 6.89	0.00	334.19	340.78			681.86
OPA POM Funding			33.22	42.72	356.51	373.00			805.45
OPA Deltas			26.33	42.72	22.32	32.22			123.59
R&D Total Cost ($M)	65.68	66.24							131.92
R&D POM Funding	65.68	66.24							131.92

HSV-X1, *Joint Venture*

TSV-1X, *Spearhead*

Total OPA and R&D Cost ($M)	813.78

Bar depicts when vessels reach 5 year statutory limit

Notes:

- R&D fully funds 2 RDTE vessels through FY05.
- Congressional approval required to lease HSV-X1 and TSV-1X (ACTD) beyond 5 Year statutory limit.

DoN Funding

- **USMC currently has programmed R&D funds to support HSV experimentation**
  - **FY04: $5.0M**
  - **FY05: $2.5M**
- **Navy has fully funded the SWIFT lease**
  - **$88M (O&M) through FY08**
- **Navy has programmed $195M (RDTE) for High Speed Vessel in FY07/08**

Current Army-USMC Coordination

- **Army currently has more mature TSV program; USMC in process of establishing Naval Program of Record**
- **Regular HSV/TSV Coordination Meetings being conducted between MCCDC and PM Army Watercraft Systems**
  - **Next meeting 21 Nov**
  - **Exchange lessons learned, schedules, R&D efforts**
- **PEO Ships-PEO CS&CSS MOA**
- **Exploring greater coordination of R&D efforts and sharing experimentation opportunities**

Recommendations

- **Develop a Joint Program Office**
- **Evolve a Common O&O Plan**
- **Develop Joint AoA for a Non-Developmental Solution**
- **Develop Single ICD/CCD**
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AMCB Way Ahead

8 DEC 03, 1530-1700

- USMC Universal Need Statement (UNS)
- Army Rapid Fielding Initiative (RFI)
- Individual/Crew Served Weapons

28 JAN 04, 1400-1600

- Electromagnetic Gun
- Blue Force Tracking/Battle Command

25 FEB 04, 1330-1500

- Small UAV/TUAV

24 MAR 04, 1330-1500

- Networks

Warfighter Information Network – Tactical (WIN-T)
Joint Tactical Radio System (JTRS)
Standard Integrated Command Post System (SICPS)
FORCE net

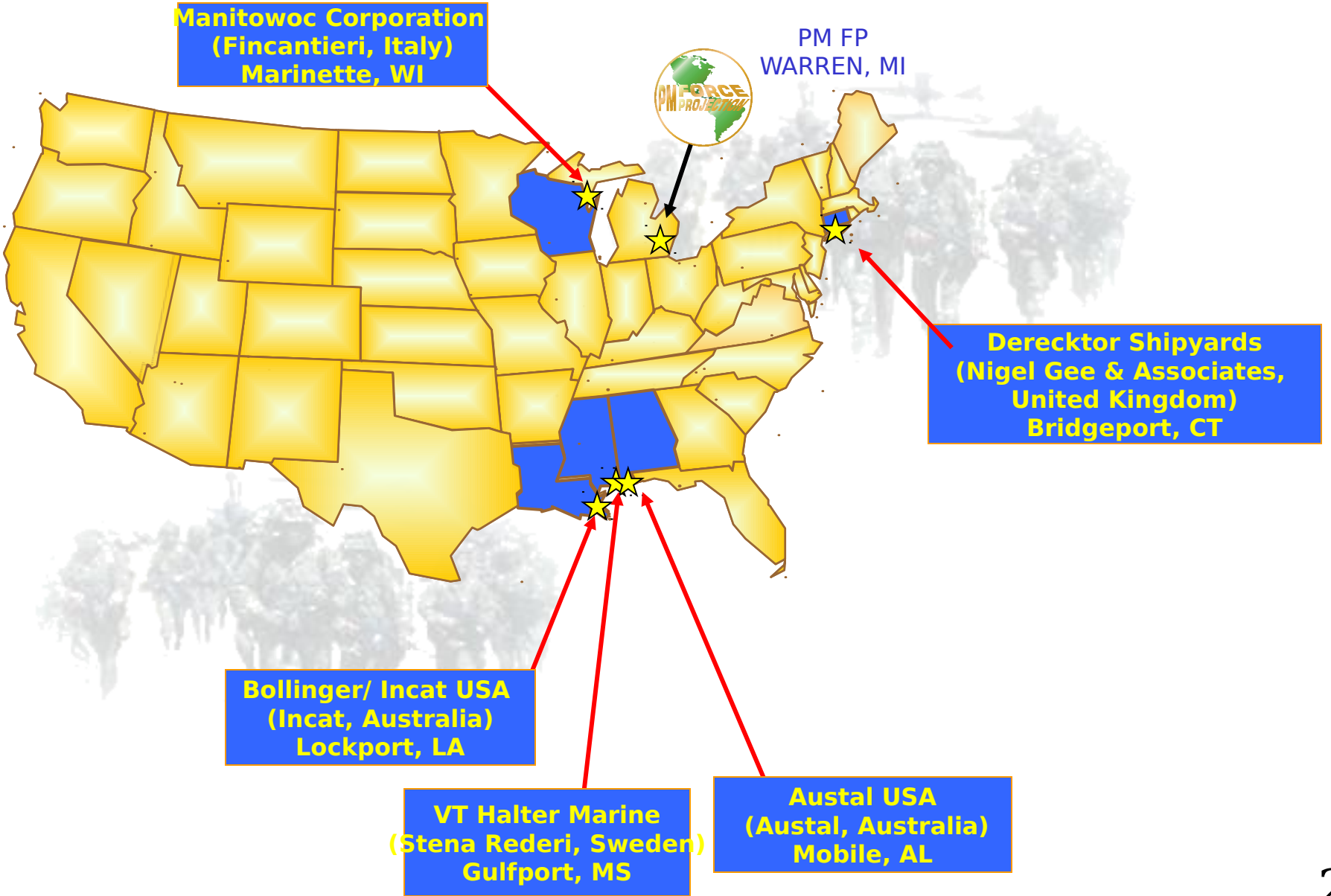
Potential April 04 Topics ?

- ✓ **Laser Designators**
- ✓ **Survivability upgrades for current/future force armored vehicles**
- ✓ **High Mobility Artillery Rocket System (HIMARS)**
- ✓ **NLOS/LOS & EFSS (TAD 155)**

Questions?

Backup Charts

Potential TSV Shipbuilders (Foreign Partners)



Army KPP Summary

- **Interoperability – Provide seamless communications capability w/ Army, Joint, and coalition forces**
- **Roll-On/Roll-Off (RO/RO) Operations – Ability to upload and discharge cargoes across common commercial and military ports**
- **Cargo Deck and Ramp – Accommodate all classes of military wheeled and tracked equipment**
- **Non RO/RO Cargo Operations – capability to load and discharge containers, flatracks, pallets w/o shore side cranes**
- **Passengers – transport up to 354 Soldiers and their equipment – equivalent to two Stryker Brigade Rifle Companies**
- **Self-Deployment – unloaded/unrefueled range of 2400 NM at 36 knots (threshold) and 4726 NM at 50 knots (objective)**
- **Intra-theater Lift – loaded/unrefueled range of 1250 NM at 36 knots w/ 754 ST (threshold) and 2500 NM at 45 knots w/ 1250 ST (objective)**
- **Shallow Draft – ability to access small ports not typically considered militarily significant, e.g. deep draft ports**